

**BY ORDER OF THE COMMANDER
442D FIGHTER WING**

442D FIGHTER WING INSTRUCTION 21-121

29 JULY 2010



Maintenance

**CRASH, DAMAGED/DISABLED AIRCRAFT
RECOVERY (CDDAR) PROGRAM**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms are available for downloading or ordering on the e-Publishing website at www.af.mil/e-publishing.

RELEASABILITY: There are no releasability restrictions on this publication

OPR: 442MXS/MXMTR

Supersedes: 442FWI 21-121, 5 July 2004

Certified by: 442MG/CC
(Lt Col Michael B. Wood)

Pages: 8

This instruction implements Air Force Policy Directive (AFPD) 21-1, *Air and Space Maintenance*, AFI 21-101, *Aircraft and Equipment Maintenance Management* and AFI 21-101_AFRCSUP, *Aircraft and Equipment Maintenance Management_AFRC Sup 1*. It assigns responsibilities and outlines procedures for implementing an effective Crash Damaged Disabled Aircraft Recovery (CDDAR) program. It establishes procedures to follow in the event of a disabled 442d Fighter Wing (FW) owned aircraft. These procedures apply to all maintenance personnel assigned to the 442FW. Superintendents, flight chiefs, and supervisors are responsible for ensuring compliance with this instruction. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the Air Force Information Management Tool (AF IMT) 847, *Recommendation for Change of Publication*; route AF IMTs 847 from the field through the appropriate functional's chain of command. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located at <https://afrims.amc.af.mil/>.

SUMMARY OF CHANGES

This revision implements guidelines that clarify the roles of the Aircraft Maintenance Squadron (AMXS), Maintenance Operation Flight (MOF), Repair and Reclamation (R&R) Flight Chief and the 509th Bomb Wing (BW) as instructed in Air Force Instruction (AFI) 21-101, *Air Combat Command, United States Air Forces in Europe and Pacific Air Forces Supplement, Whiteman Air Force Base Supplement* located on the Whiteman intranet and Tenant support agreement. It

also updates the title and information in Attachment 1 of this Instruction. This document has been substantially revised and must be completely reviewed.

1. Generalized CDDAR Responsibilities

1.1. Supervisors at all levels must recognize the sources of hazards and apply appropriate safety practices to minimize their effect. There is an infinite variety of possible emergency and crash recovery situations; therefore, specific procedures cannot be prescribed for every situation. All aircraft recovery actions are coordinated through the disaster control group to the On-Scene Commander (OSC). Practice through participation in wing crash recovery exercises and implementation of operational risk management techniques are imperative for all emergency and crash recovery operations.

1.2. Responsibilities. The 442d Maintenance Group Commander (CC) or his designated representative, Maintenance Squadron (MXS) Commander and Superintendent, Wing Operations Supervisor, and R&R Flight Chief will ensure immediate compliance with this instruction upon notification of a crash/disabled aircraft. When requested, the R&R Shop has the responsibility to provide for the recovery and reclamation of equipment and damaged or crashed aircraft within their capability. Prime consideration would be to, reopen the runway for operational use, prevention of secondary damage, and preservation of evidence for accident investigation.

1.3. Maintenance Operations Center (MOC) will provide the following:

1.3.1. A recall roster of all CDDAR aircraft recovery team members with their home phone numbers.

1.3.2. Coordination between the 442MXS and other base crash rescue agencies (509th Bomb Wing).

1.4. The R&R Flight Chief will:

1.4.1. Establish crash/disabled aircraft recovery team rosters, which will be on file in the MOC. This will also include after duty hours contact information.

1.4.2. Provide a non-tactical radio for the CDDAR team.

1.4.3. Be designated as the Primary Recovery Team Chief.

1.4.3.1. The Crash Recovery team will consist primarily of personnel from the R&R shop. Personnel from other maintenance activities will augment this team as required.

1.4.4. Determine and maintain a list of all equipment needed for crash/disabled aircraft recovery operations for A-10 aircraft.

1.4.5. Respond, when requested, to all major mishaps on or off the active airfield.

1.4.6. Conduct an initial site-survey. Conduct site-survey safety briefing with the crash recovery team prior to entry onto the mishap scene.

1.5. The 509th BW will provide required short falls of equipment, vehicles and personnel as required and is responsible for transient aircraft. This is also called out in AFI 21-101, *Whiteman, AFB_Supplement*, 10 April 2008 and the 442d/509th Support Agreement, 27 February 2006

2. Responsibilities:

2.1. The 442nd MOC Representative will:

2.1.1. Ensure initiation of the 442d FW Maintenance Group (MXG) Checklist 02 *Aircraft Mishap/Incident/ Crash*, which includes contacting all pertinent base agencies and 442d MXG leadership to include MXG/CC and MXS/CC who will determine if the Crash Recovery Team (CRT) will be contacted.

2.1.2. Maintain a written log of all-significant facts and occurrences that take place during each CDDAR aircraft recovery operation

2.1.3. Notify the MXS/CC or designated representative to act as the On-Scene Maintenance Representative.

2.1.4. Notify Aerospace Ground Equipment (AGE) Flight to provide necessary ground equipment such as but not limited to; Light cart(s), -60, Bomb lift, MC-7, heater, and Maintenance Stands at the request of Senior Fire Official, On Scene Commander, and/or the CDDAR team supervisor. All equipment must be readily available for use during CDDAR operations.

2.1.5. Notify CDDAR Team Chief to assemble the crash/disabled aircraft recovery team and equipment from the 442 R&R shop.

2.1.6. Notify other work centers when informed of a need for specialist personnel by on-scene maintenance representatives (i.e., Arm/Release, Bomb Dump, Pneudraulics, Egress, Fuel Cell, Machine Shop, Specialist Flight, Structural, and Weapons Flight).

2.1.7. Notify Munitions Flight of the potential need to provide a driver and munitions trailer for the removal of any munitions or explosives.

2.1.8. Notify 509th Logistics Readiness Squadron (LRS) section of probable need to expedite crash/disabled aircraft recovery vehicles and special equipment.

2.1.8.1. Possible vehicles that may be required but not limited to; General purpose radio-equipped vehicle to transport personnel to the mishap site, crash recovery trailer, tow vehicle for transportation of the crash recovery trailer, suitable trailer and tow vehicle (for storage and transportation of recovered equipment or aircraft, 10k forklift, all terrain forklift, aircraft tow vehicle and tow bar, crane 20 or 50 ton as applicable (owned by 509th R&R), and bulldozer(s).

2.1.9. Notify 442d Quality Assurance (QA), when requested by the CRT, to help determine weight and Center of Gravity (CG) conditions of aircraft.

2.2. AMXS will:

2.2.1. Assemble emergency tow team with MB-4 tow tractor and tow bar as required.

2.2.2. Assemble and dispatch a fully qualified weapons load crew to down load mishap aircraft at the direction of the OSC or CDDAR Team Chief as required.

2.2.3. Augment the CDDAR team as required at the request of the OSC or CDDAR Team Chief.

2.3. QA will secure the following:

- 2.3.1. Air Force Technical Order (AFTO) Information Management Tool (IMT) Form 95, *Significant Historical Data*, includes aircraft and engine records.
- 2.3.2. Time Compliance Technical Order (TCTO) records, aircraft and engine.
- 2.3.3. Functional Check Flight (FCF) Forms.
- 2.3.4. Integrated Maintenance Data System (IMDS) Repair History Data for past 90 days.
- 2.3.5. Aircraft Deficiency Analysis Report.
- 2.3.6. Debriefing Forms.
- 2.3.7. Defense of Department (DD) Form 2026, *Oil Analysis Request*.
- 2.3.8. Record Consolidation Location. Coordinate with the Interim Safety Investigation Board or On-Scene Commander where all records will be consolidated.

3. Personnel Required for CDDAR Operations

3.1. The On-Scene Maintenance Representative will:

- 3.1.1. Report to the disaster response assembly point.
- 3.1.2. Request additional support from MOC regarding any shortages in crash/disabled aircraft recovery personnel or equipment.
- 3.1.3. Proceed to crash/disabled aircraft site. After Base Officials have released the site, coordinate crash/disabled aircraft recovery operations with the On-Scene Commander.

3.2. CDDAR Team will:

- 3.2.1. Assemble on flight line (east) side of Building/Hanger 1117 with all required technical data and equipment to be utilized for the CDDAR operation.
 - 3.2.1.1. Acquire equipment, tools and supplies that may be required, such as: Air bags, air bag consoles, MC-7 air compressor, light carts, slings, belly bands, snatch cables, chains, guideline rope, aircraft jacks, portable tool box(s), jack point adapters, ladders, dunnage/shoring, shovels, axe, sledge hammer, etc.
- 3.2.2. Await permission of base officials to begin recovery operations.
- 3.2.3. Proceed to the site, when directed by MOC or on-scene maintenance representative.
- 3.2.4. Provide all possible assistance to the OSC.
- 3.2.5. Follow directions of the CDDAR Team Chief, who has complete control of the recovery operations.
 - 3.2.5.1. The CDDAR Team Chief will assure all team members and any additional personal have required Personal Protective Equipment (PPE) prior to entering the crash site. Minimal requirements are steel toe boots, leather gloves, hard hat, safety glasses, hearing protection when required and reflective vest or belts in the hours of darkness.

- 3.2.5.2. The CDDAR Team Chief will assign duties to the CDDAR Team. (i.e., lifting bag setup teams, manifold operator(s), MC-7 operator, tow team, sling build up and installation team, guideline teams, aircraft monitors and safe for maintenance team).
- 3.2.6. Special Vehicle Operator: Individual trained to operate special purpose vehicles. 509th LRS will provide qualified drivers at the request of Senior Fire Official, OSC and/or CRT. All vehicles and drivers must be readily available for use during CDDAR operations.
- 3.2.7. Ensure all fire, safety and explosive hazards have been eliminated before working on the damaged aircraft.

4. Host/Tenant Base CDDAR Responsibilities

- 4.1. The 509th BW (Host) has overall responsibility for initiating crash responses. in accordance with (IAW) AFI 21-101 *Aircraft and Equipment Maintenance Management, Air Combat Command, United States Air Force in Europe & Pacific Air Force Supplement, Whiteman, AFB_Supplement*, 10 April 2008, and IAW 442d /509th Support Agreement # FB4625-04124-011, 27 February 2006.
- 4.2. The 442nd FW (Tenant) has the responsibility for specialized aircraft removal equipment and trained personnel to augment the host upon request. IAW 442d /509th Support Agreement # FB4625-04124-011, 27 February 2006.
- 4.3. The 442nd FW will ensure sufficient equipment is available for mobility/deployed operations on their A-10 aircraft.

5. Training:

- 5.1. The R&R Flight will:
- 5.1.1. Receive familiarization training on any unique characteristics/hazards/materials for assigned aircraft (i.e. Depleted Uranium (DU), composite material etc.).
 - 5.1.2. Train and understand proper use of PPE as determined by technical data and the base Bioenvironmental Engineer.
 - 5.1.3. Conduct or participate in annual training exercise with both host and tenant units.
 - 5.1.4. Ensure all training coordination will include all departments, sections, squadrons and base agencies outlined by AFI 21-101, *Aircraft and Equipment Maintenance Management*.
 - 5.1.5. Provide CDDAR Team members with initial and recurring (annual) crash recovery training IAW AFI 21-101, Chapter 14.
 - 5.1.6. Document all training as the host and tenant deem adequate (i.e., IMDS, Career Field Education and Training Plan, Training Business Area, etc.)

6. Prescribed and Adopted Forms

6.1. Prescribed Forms:

AF IMT 847, *Recommendation for Change of Publication*

6.2. Adopted Forms:

DD Form 2026, *Oil Analysis Request*

AFTO IMT 95, *Significant Historical Data*

MARK L CLEMONS, Colonel, USAFR
Commander

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFMAN 33-363, *Management of Records*, 1 March 2008

AFPD 21-1, *Managing Aerospace Equipment Maintenance*, 25 February 2003

AFI 21-101, *Aircraft and Equipment Maintenance Management, Air Force Reserve Command_Supplement*, 3 February 2007

442d /509th Support Agreement, 27 February 2006

AFI 21-101 *Aircraft and Equipment Maintenance Management, Air Combat Command, United States Air Forces in Europe & Pacific Air Forces_Supplement, Whiteman, AFB_Supplement*, 10 April 2008

Abbreviations and Acronyms

AFI—Air Force Instruction

AFPD—Air Force Publishing Directive

AFTO—Air Force Technical Order

AFMAN—Air Force Manual

AGE—Aerospace Ground Equipment

AMXS—Aircraft Maintenance Squadron

BW—Bomb Wing

CC—Commander

CDDAR—Crash Disabled Damaged Aircraft Recovery

CG—Center of Gravity

CRT—Crash Recovery Team

DD—Defense Department

DU—Depleted Uranium

FCF—Functional Check Flight

FW—Fighter Wing

IMDS—Integrated Maintenance Data System

IMT—Information Management Tool

LRS—Logistics Readiness Squadron

MOC—Maintenance Operations Center

MOF—Maintenance Operations Flight

MXG—Maintenance Group

MXS—Maintenance Squadron

OIC—Officer in Charge

OPR— Office of Primary Responsibility

OSC—On Scene Commander

PPE—Personal Protective Equipment

R&R—Repair and Reclamation

TCTO—Time Compliance Technical Order

QA—Quality Assurance